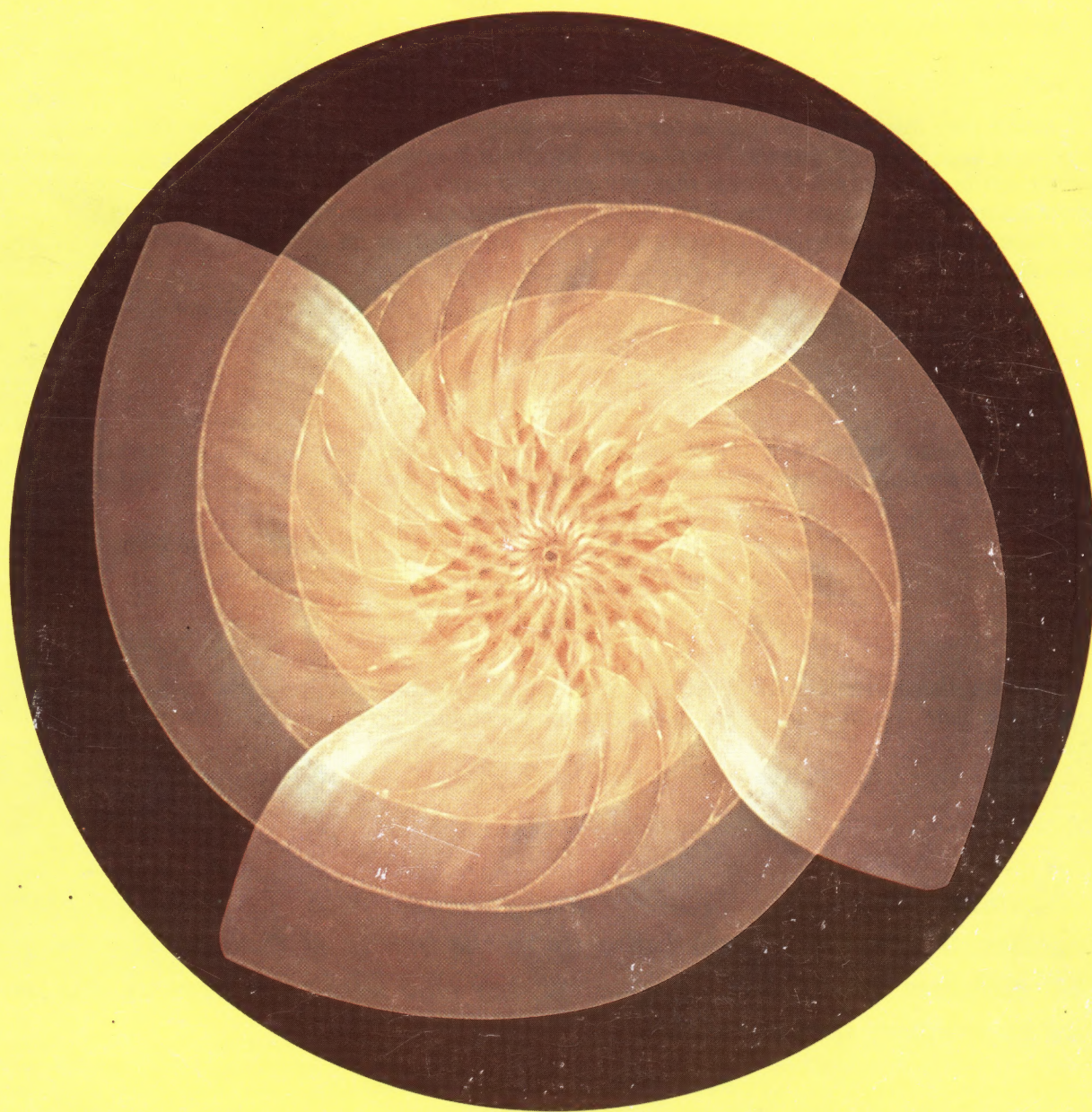


Nautilus

Magazine

Spring 1980



Letters

What club members are saying . . .

I'd like to take a minute to thank you for your wonderful job in the Nautilus field. Your magazine is excellent in keeping me up to date on many aspects of physical fitness. I am a firm believer in the Nautilus concept . . . keep up the good work.

*Joseph A. Merlino
Feasterville,
Pennsylvania*

The magazine is very well organized, informative and a source of updated information in the field of Nautilus. I find the magazine to be very helpful. Thank you for your time and help.

*Michael Kemp
Brockport,
New York*

I would very much like to receive the Nautilus Magazine as a regular addition to my Nautilus training. I have been training the Nautilus way for about 8 months and during this time I have made greater advances in physical fitness than my entire 10 years of previous training on other conventional equipment. Needless to say, I am extremely enthusiastic about Nautilus fitness methods. I like the magazine for its beneficial advice and updated information on the latest advances in fitness methods.

*Robert Hoppe
Chicago,
Illinois*

I would like to be added to the subscription list for Nautilus Magazine since I have been very pleased with the Summer and Autumn 1979 issues. I have found the magazine very helpful in my thinking . . .

*John Graham Webb
Lynchburg,
Virginia*

"The Nautilus Magazine is the ideal tool to fill the gap between club members' curiosity and what is going on with Nautilus and other clubs around the country. It is an invaluable communication link . . ."

*Walt Anderson
Deland,
Florida*

Nautilus Magazine, through arrangements with Nautilus equipped facilities, is now being mailed directly to the homes of thousands of fitness club members throughout the country. Any club wishing to provide this service to members should contact:

Nautilus Magazine

P.O. BOX 160, INDEPENDENCE, VA 24348

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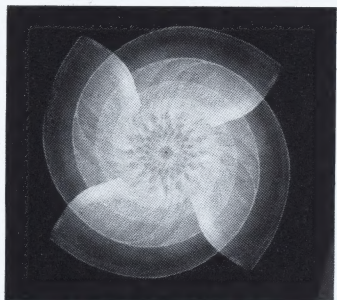
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The cover photograph for this issue is by Martin Vandiver of Shreveport, Louisiana. Vandiver works almost exclusively in 35mm and specializes in multi-image production. This shot was created by rotating the Nautilus shell for each of the four exposures.

Contents

- 3 *Florida Seminar: A Look at Nautilus Video/Photo Story*
- 6 *Women and Fitness, Prospects and Problems/Kathrine V. Switzer*
- 11 *The Posture Machine: Rowing Torso/Ellington Darden, Ph.D.*
- 12 *Psychiatry for Athletes/Ari Kiev, M.D.*
- 14 *Nautilus in Perspective: First Stop — California/Jene Hughes*
- 17 *Weighing the Alternatives/Ellington Darden, Ph.D.*

Plus

A Video Report

Corporate Fitness at PepsiCo

A List of Recommended Reading

News from the Nautilus World

Nautilus Magazine is published four times a year at Independence, Virginia. Inquiries should be addressed to Jene Hughes, Nautilus Magazine, P.O. Box 160, Independence, Virginia 24348; or to David Liskin, Nautilus Sports/Medical Industries, P.O. Box 1783, DeLand, Florida 32720. Letters to the editor are welcomed and should be sent to the Virginia address. They may be edited upon printing because of considerations of space. No responsibility can be taken for unsolicited manuscripts, photographs, art work, or other materials.

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Florida Seminar: A Look at Nautilus Video



Display above served as focal point for seminar activities. During the two days, most of the three hundred participants took advantage of trying out the latest models of the computerized equipment being developed.



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Arthur Jones addressing seminar participants. The numbers on the wall demonstrate coding system for the instructional tapes.

LAKE HELEN, FLORIDA. February 29 and March 1 were the dates of the Nautilus Television Network Video Seminar. The event was held in the network's facilities and for many of the more than three hundred club owners, coaches, trainers and their families and friends it was the first look at the Florida operation as well as the first look at Nautilus video productions.

Visitors were greeted by a towering new poster (see photo on page 24) at the entrance way and attended meetings and workshops throughout the studios. Batteries of video screens presented a constant collage of Nautilus produc-

tions, an important display being a complete circuit of machines, each with its own giant screen system showing instruction material for that piece of equipment. Included was the Abduction-Adduction Machine, the newest piece of Nautilus equipment to enter production.

The main speaker was Arthur Jones, founder of Nautilus Sports/Medical Industries, who introduced the first available productions from the new facilities and spoke and answered questions about the future of Nautilus.

Other topics of lectures and discussions were medical rehabilitation, conditioning concepts for

men and women, nutrition and diet, club management, membership financing, advertising, and club design. Of special interest to clubs that incorporate racquetball into their fitness programs was the presentation on Friday evening by Dave Peck. Mr. Peck is the nation's number two ranked professional and was the 1979 Rookie of the Year. He is currently conducting racquetball clinics for clubs.

The complete series of the instructional tapes made available (see listing on page 25) is cataloged by muscle groups (legs, torso, etc.) and the series is packaged for Betamax playing in a color coded

Continued on page 24

by Kathrine V. Switzer

Women and Fitness

Prospects and Problems

Progress in the last five years of women's sports has been as great as in the entire last century. In the next five or ten years the progress will be incredible — beyond imagination. A snowballing effect in growth will take place and women's participation in sports will be, within our lifetimes, equivalent to men's. That does not necessarily mean participation in football, baseball, wrestling or other traditional men's sports. As a general trend, more and more sports will be participatory rather than spectator and I predict a wave of new sports that will be uniquely suited to women.

Women will want and need to be trained for this situation. Already they are absolutely starving to get a system that makes them *as good as they can be*. Those currently in sports often become evangelical about it because women in the past have been deprived of the normal systems (pee wee baseball, high school teams, college ball clubs). When they do learn there is a whole new world out there the enthusiasm is incredible and gets passed on. Women not yet involved in sports are interested in becoming so, but are confused about how to begin.

The whole concept of health and fitness is the wave of the future — for both men and

women. In terms of women, because it is so new and different for them, it can be much more dramatic. Anyone who has been reading *Vogue* or *Harpers* lately should have noticed something interesting. In just a couple of years, the "beauty" editor has become the "health and beauty" editor or the "fitness and lifestyles" editor. Every issue is crammed with jogging, stretching, swimming, and nutrition articles. Fitness is now not only accepted (even fashionable), it is recommended beauty care. But such changes are the mere tip of the iceberg for women. I've been an athlete all of my life, long before it was even acceptable, and I can tell you that fitness for women is here to stay. Women are increasingly concerned with the quality of their lives and that of their families' lives. They are concerned that they are not just healthy, but fulfilled. Once fitness is learned it is not easily given up. Further, I predict that in an increasingly competitive, complex, and possibly degenerative society, fitness will be a source of survival as well as self worth. People are getting serious about getting in shape.

So for women, even though it may begin that way, there is much more involved than attractive looks. Hopefully people are aware of the legal changes that are taking place in all aspects of women's

athletics. Title IX is going to impact the fitness world and we must be ready. Sports scholarships for women are beginning to flourish and women are now in hot competition for them. More mothers and fathers are seeking methods to give their daughters the fitness edge. If we are ready for this thinking we will be in an excellent position to further promote women's fitness. And we can help pattern its growth.

Nautilus is the bell ringer in the scientific advancement of fitness. Nautilus clubs are in a strong position with the proper equipment and expertise to advance fitness for women. The problem is getting women involved. And there *are* problems.

Despite supposed enlightenment, women are still emotionally confused about exercise and training — particularly when it involves "weight" training. For the most part women have lost their fear of running or performing sit-ups, but "weights" have a long way to go. A woman may still not be convinced that she won't get big muscles and somehow, in other ways, lose her femininity. Or she fears that it will be too tough — she will get hurt. Education is the key to the problem. Advocates of women's fitness must become public relations people.

Continued on page 8



In 1967, a woman listed only as "K. Switzer of Syracuse, N.Y." found herself about to be thrown out of the then all-male Boston Marathon when a husky running companion threw a block that tossed the race official out of the running instead.

Kathrine Switzer . . .

In 1967 Kathrine Switzer was the first woman to wear official numbers in the Mecca of distance races, the Boston Marathon. It was a time that world-ranked runner Switzer still refers to as the Dark Ages of women's running.

When a race official saw Switzer striding briskly along the course with some 700 men, he leapt into the field and pursued her, trying to rip her numbers off her shirt and bodily throw her out of the race. (Unbeknownst to the race official, Kathrine's boyfriend, a 200-pound hammer thrower, was running alongside her. He gave the official a body block that sent him through the air and ultimately on his derriere. Kathrine went on to finish the race). In 1972, women were made official in the Boston Marathon, and although they had to meet the men's qualifying standard, they knew they were on their way.

In the decade since, Ms. Switzer emerged as one of the country's finest long distance runners, posting a world-ranked time of 2:51 in the marathon. She has also championed equality in athletics for women's running. Not only has she helped women gain official status in the U.S.A. and Europe, but she has sought out the sponsorship for women's events which culminated with the reality of her long-held vision: The Avon International Running Circuit, an arena in which women may compete in a continuous series of distance events with world-class participation and world-class recognition for their efforts.

Switzer now wears the title of race organizer at the expense of her own competitive training schedule. But she explains, "the most satisfying thing for me is to help create opportunities where none existed before, to see a lot of frustration end for other women." She believes that women will now have a chance to realize themselves as athletes in a sport that didn't officially exist for them.

"I'm also anxious for running discovery to happen to other women — not just the top competitors." Switzer adds: "— through running, women are realizing their full physical potential. They're beginning to take joy in their own movement, in the feelings of strength and freedom that physical accomplishment can give."

Though Switzer began her career bucking the male athletic establishment, she believes that a woman's realization of her physical equality can bring about a new harmony between the sexes. "As a woman achieves a better balanced self-image," Switzer notes, "she can more easily regard men as friends and vice versa, because a common level of understanding is established. Men and women who run, play and strive for physical goals together appreciate each other. They don't threaten each other. Running is the only sport where men and women compete in the same arena, though not against each other. And this could contribute to the greatest social revolution in years!" 🌀

Women and Fitness

Continued from page 6

Some Problems

There is often an appeal to an outdated, unfashionable or demeaning mentality. Women know that they need to learn a lot, but they don't like you to tell them so directly.

Some advertising is discouraging in that it says to men: "Keep

mind and body sharp. Training can now fit into hectic business schedule." But for women it might say: "Increase bust size dramatically. Training keeps men whistling." For a woman it is far better to present the fact that a good body is integral with her thinking and well being and appeal to her with the concept of hard work performed under expert supervision. The image of fat

ladies sitting on rollers and kidding themselves is a detriment to women's fitness. But a properly structured facility can provide the guidance and make demands. Women will absolutely respond to that if it is clearly put apart from the so-called "figure salons."

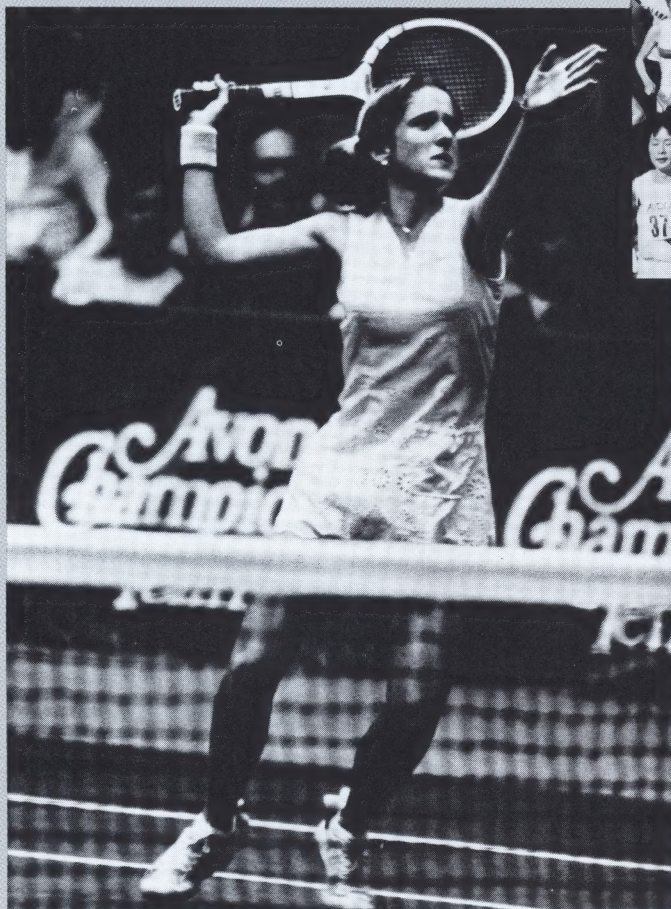
Another problem in educating the women's community is that of depicting women athletes photo-

Continued on page 21

Avon Sports . . .


Avon Products, the world's largest producer and distributor of cosmetics, has become a leading supporter of women's athletics. Operating under slogans such as "Women's tennis never looked so good," and "The beauty of women in motion . . ." they sponsor Avon Championship Tennis, the Avon Futures Circuit, and the Avon International Running Circuit.

Tracy Austin (below), winner of the first Futures in 1977, was the winner of this year's Championship at Madison Square Garden.



She defeated Martina Navratilova (to whom she was runner-up last year) 6-2, 2-6, 6-2.

The accompanying photo shows the start of the second annual Avon International Marathon held in Waldniel, Germany last September. Two hundred sixty-two runners from 24 countries ran the 26-mile event. Led by 41-year-old Joyce Smith of England, with a 2:36:27 performance, a record of 16 women broke 2:50 and 36 women broke 3 hours.

This year's National Championships will be held in May in Pasadena, California, and the Third International will be this fall. Avon, by backing such events, is hoping to accelerate the acceptance of women's athletics. "The important thing however, is that women have the opportunity," said David W. Mitchell, an ardent supporter of women's running and chairman and chief executive officer of Avon. 



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Arthur Jones, in foreground, visits with guests at Nautilus video facility. From left to right, Mr. Joe Blasko, N. R. Prince Faissal Bin Abdullah Bin Mohammed Bin Abdul Aziz L Saud, Dr. Albert Khaler, and Robin Moore (author: French Connection, Green Berets, Dubai).

Amidst the hum of electronics, the Nautilus Television Network has begun production of video product. From brilliantly lighted sound stages to dim control rooms, engineers, audio experts, editors, directors and talent are systematically creating programs on a wide range of topics — topics of great interest to everyone and of special interest to those involved with Nautilus.

Programs have been created to focus on many of the everyday questions encountered by club owners, trainers, and club members. Subjects include a series on Sports-medicine, Nautilus and Racquetball, a series on training techniques, and a wide variety of programs dealing with proper use of Nautilus machines. These video tapes will serve two functions. They will create an increased

awareness of Nautilus Clubs and Nautilus Equipment and they will educate a heretofore unreachable audience on the techniques and philosophies of Nautilus.

One program featuring Dr. Ellington Darden entitled "Three Times the Results" has proven to be a great motivational tool in creating in audiences a desire to train.

Nautilus has produced a library of video that is invaluable to both club members and club owners. It will be hard to imagine a club facility that will not make Nautilus video available to its members and employees. We clearly envision the day when the first and last machine of anybody's workout will be a video screen.

Inquiries have been pouring into Lake Helen from all over the

world in regard to the Nautilus Television Network. Presidents of many major United States and foreign corporations, well-known celebrities, and occasional political dignitaries have indicated both by words and actions their eagerness to join us in our vision of the future.

The printing press, the automobile and the computer have all contributed to the standard of living which we all enjoy. However, none of these inventions will match the effect of the video revolution. Video will forever change the way we communicate with each other and our ideas will take on an electronic energy that will change the world. From now on, we will dream with open eyes as video communications point the way. ☛

See page 25 for a list of tapes now available...



Nautilus equipment in use at the PepsiCo complex. The director of fitness programs is Dennis Calosina, Ph.D.

Corporate Fitness at PepsiCo

PepsiCo has implemented a total health and fitness program which involves medical personnel and practices preventive medicine. The different areas of the program include an executive program along with an employee rehabilitation and recreational program, which are all subsidized by the corporation.

Rather than having a mass program for employees, PepsiCo has a risk identification program which, by its name, identifies high-risk factors such as hypertension, smoking, and obesity before any aerobic field testing is carried out. This process is followed by cardiovascular, pulmonary, anthropometric and skinfold measurements to record baseline data on one's entire profile before starting their exercise program.

If at any point along this process an individual is identified as a high-risk person (coronary, muscular injury, or post-surgical), the individual is then closely monitored in a rehabilitation program. Secondly to this, the person who is normal by risk standards is given a consultation

period and encouraged to participate in a supervised program of fitness. For those who do not wish to have individualized programs, group activities are available, for example, dynamic dance and specific exercises, such as low back exercises. A final component of this program would be education in the form of seminars on the high-risk factors and fitness.

The executive fitness program is a more structured setting dealing with key personnel. Because of this small number of executives (compared to all employees) and their importances to the company, a comprehensive and thorough screening becomes cost-effective. The design starts with a physical examination, but unlike the employee program, full stress testing with medical supervision is carried out.

This process precedes the necessary profile assessments and individualized consultation before exercises or rehabilitation. An adequate facility and proper equipment make their fitness and health program appealing to everyone involved.

For those who have no interest

in a formal exercise program and prefer competitive team sports, facilities are available at the PepsiCo Headquarters for tennis, basketball, volleyball, and flag football either on organized teams or on an impromptu basis. There are also those who utilize the 1.2 mile running course around the headquarters and adjacent 1.4 mile fitness trail. A morning opportunity for swimming, racquetball, and squash is also available at SUNY College adjacent to the complex.

In addition, the attractive park-like setting of the complex, its garden areas, sculptures, and many pathways encourage many who have no desire for formal physical activity to spend their lunch hours by taking a leisurely stroll on the grounds.

The key factors in the success of PepsiCo's programs are an atmosphere in which fitness and health are encouraged and personal examples are set by top level management, the availability of a professional staff, and the accessibility of facilities and supervision to all employees. ☉

The Posture Machine: Rowing Torso

by Ellington Darden, Ph.D.

Many people in a standing position have a decided sag and slump to their posture. The head and shoulders are leaning forward and the belly protrudes. Poor posture projects the look of laziness, weakness, and lack of vitality. It certainly makes a bad first impression on many people. Furthermore, poor posture can lead eventually to musculoskeletal problems.

Correct posture or body alignment occurs primarily as a result of muscular teamwork. One muscle group does a job that counteracts that of another. For example, when the biceps contracts to bend the elbow, the joint does not simply straighten again when the biceps relaxes. The elbow joint is straightened instead by the contraction of the triceps muscle. The biceps and triceps of the upper arms counterbalance each other. Such muscle teams are found throughout the body.

The most important muscle teams that contribute to shoulder girdle posture are the pectoralis majors of the chest, the deltoids of the shoulders, and the trapezius of the upper back. The pectorals move the upper arms across the chest. The deltoids raise the arms to the front, side, and back, and the trapezius elevate the shoulders and adduct the scapulae.

If the trainee over-emphasizes the pectoral and anterior deltoid muscles, which is usually the case if he has been doing barbell bench presses, the shoulders will have a rounded look. Too much concentration on the trapezius and posterior deltoids will give a bunched effect to the shoulders. Balanced strength between the pectoral and trapezius muscles and between the front and back deltoids keep the shoulders square, the chest high, and the

head up. This insures correct upper body alignment.

The posterior deltoids and trapezius have been difficult muscles to strengthen with conventional equipment. The resistance must be filtered through the hands and arms. Since the hands and arms are weaker than the torso muscles, the torso muscles could only be worked in a limited manner. This problem was solved with the Nautilus Rowing-Torso machine.

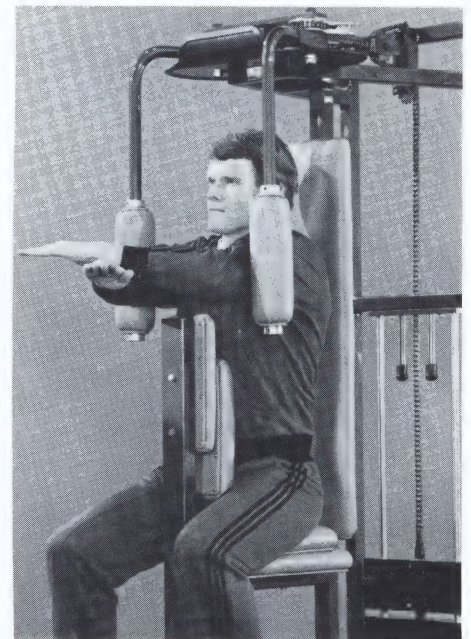
The Rowing-Torso machine is specifically designed to work the posterior deltoids and trapezius. Numerous smaller muscles, such as the teres minor, infraspinatus, and rhomboid, are also involved.

To obtain the greatest benefit from this machine it is important to adhere to the following rules:

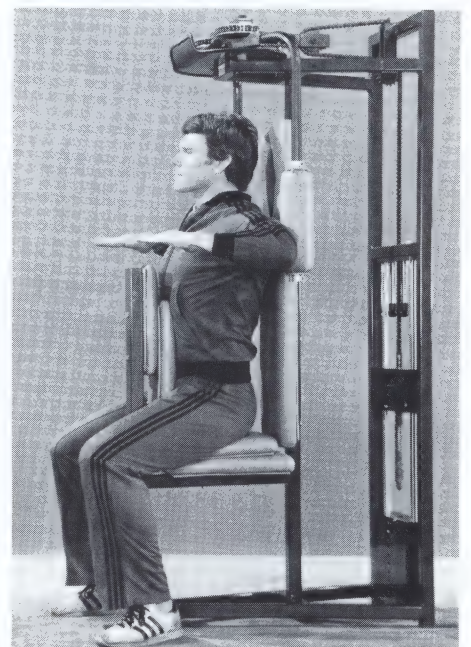
1. Sit with back toward weight stack. Most trainees will need to use an elevation pad on the seat bottom. Short individuals will need two pads.
2. Move small attached pad between chest and front of machine.
3. Place arms inside of roller pads and cross forearms.
4. Bend arms in rowing fashion as far back as possible.
5. Keep elbows and hands on same level as shoulders. Do not let the elbows and hands sag.
6. Pause in the fully contracted position.
7. Return slowly to starting position and repeat.

The Rowing-Torso machine can be performed immediately after the Double Chest machine. Thus, the trainee has effectively worked muscle groups that counterbalance each other.

Several months of concentration on the Rowing-Torso machine should lead to balanced muscular strength and better posture for all Nautilus trainees. ♾



Starting position: *In a seated position, place upper arms between roller pads. It is important to keep hands, elbows, and shoulders parallel to the floor throughout the movement.*



Movement: *Bend arms as far back as possible. Pause. Slowly return to the starting position. Repeat until muscles are momentarily exhausted.*

by Ari Kiev, M.D.

Psychiatry for Athletes

This article has been prepared to help you, the reader, in your efforts to realize your athletic potential irrespective of the level of athletic achievement you may have reached.

One of the main objectives of sports psychiatry is to help you develop your natural athletic abilities so as to change your life in a meaningful and rewarding way — whether to simply help you develop a satisfying, health enhancing personal athletic program or to help you achieve world class status and an Olympic gold medal. In either case the basic psychological principles you must learn are the same. I have developed and refined many of these concepts in my work with Olympic athletes, many of whom have taught me much about their own techniques in preparing for World Class competition. Extended discussions with athletes in many different sports have enabled me to establish certain generalizations about the psychological techniques most useful for improving athletic performance. What I have tried to do in my work with athletes is put into broader general perspective some of the principles which they have developed on their own which have value for others.

The concepts discussed here have proven useful in tapping inner sources of energy and talent in world class athletes as well as in nonathletes who have sought to become involved.

The significance of a rational and psychological approach to sports is recognized in the fact that mental factors are probably more critical for athletic performance than has hitherto been recognized.

Most people have tended to focus on the physical dimension of athletics. And yet, when looking at world class athletes in the prime of condition, it is clear that they



The more you can think positively and focus in on the likelihood of achieving the goal you've set, the more likely it is you'll work toward it, pursue it, and relax so that all your resources can be applied to the event itself . . .

can perform at high levels because of certain mental images they have of themselves and that the factors differentiating winners from losers also relate to mental factors.

The recognition of this role of mental factors in participation and in performance indicates enormous possibilities to involve in sports people who until now believed the door was closed to them. It also points to new heights of achievements for those athletes who are in fact interested in world class competition.

Accepting a psychological view of athletics implies a willingness to change one's athletic self-concept, to prepare oneself for the possible change, and to practice a set of psychological skills for effecting the change.

The reluctance to engage in athletics or, for those of you already involved in sports, to pursue higher levels of achievement stems quite naturally from a fear of the unknown and from the acceptance of prevailing myths. These myths reinforce both mediocrity and an unwillingness to accept responsibility for tapping your inner resources.

Consider how often you keep making the same errors because of a fear of trying a new approach. How reluctant are you to observe yourself in action so as to correct deficiencies or bad habits? Somehow it's easier to accept a fixed view of yourself than to try to change that view. To try to change means to live with a bit of uncertainty about how things will turn

out. But unless you do this, you will close off the new possibilities that are inherent in each new moment and that may take you to new heights.

How do psychological factors relate to sports? Top flight athletes encounter a variety of stresses associated with long preparation for a highly competitive event against the world's top athletes. There are stresses associated with the event itself, i.e. performance anxiety, as well as the stresses inherent in the sport itself. For years athletes have focused on the physical preparation for these events. In the course of this time they've also prepared themselves psychologically for the event, although in a less systematic way.

Most top athletes have learned to master a great deal of stress and have developed ways of modifying their own behavior responses to the stress of the event so as to capitalize on the situation rather than be thrown by it. Nevertheless, as the psychiatrist on the U.S. Council on Sports Medicine I am at the present time very much interested in trying to understand the phenomenon of stress as it pertains to the athlete. Especially interesting are the techniques that World Class athletes have used to master stress, such as the visualization of the event in advance in order to overcome anxiety responses, i.e. neutralizing stressful events through imagery rehearsal techniques. It is also possible to learn techniques of relaxation that reduce the tension

which can throw off top performance. In effect, psychological skills make the difference between whether an athlete achieves success or failure in top flight competition.

One clearcut theme that an athlete must concern himself with is the mastery of impulses which may throw the athlete off during an event. Another issue concerns the capacity that marathoners must develop over time to tap what might be considered unconscious reserves to overcome adversity, pain and self-doubt during a marathon event. This involves the capacity to reach into unconscious powers of the mind, to bring full strength and maximum performance to a situation when the athlete's body is in pain and when he's feeling very frustrated and uncertain as to the value of persisting in a situation.

For other athletes such as fencers, there is considerable value in developing skills at self-observation during competitions, the ability to stand outside oneself and allow the "perfect fencer" within to function naturally and freely. The more preparation for the event, the more skill he has and the more he can allow his mind to be free and open and flexible, the more capable he is of functioning in the event.

For other athletes there is value for them in imagery rehearsal. One year before the event some athletes start thinking about "the race" and visualize all possible contingencies. This helps to pre-

Continued on page 21

Nautilus in Perspective:

Nautilus has hit Southern California hard enough to register on the Richter earthquake scale. In three days, Nautilus magazine staff visited seven different locations and interviewed a score of people. The impression? **Impressive.** People were training seriously and properly for reasons as varied as you might expect in the area with a reputation for leading the nations trends. A brief stop at one club produced a membership file containing winning competitors in everything from frisbee flinging to fly casting, from rugby to rowing.

While the trend toward proper strength training doesn't hint in the least of fads, it does demonstrate the tremendous variety of activities available today. For one Santa Barbara man the activity is, as he puts it, "the ability to keep on breathing." He credits Nautilus training with helping to save his life.

Los Angeles

For an attractive young lady in Los Angeles the activity is preparing for the ABC Superstars competition. Though it was winter in most of the United States, it was shirt-sleeve sunny when this reporter met Gayle Dickey. Gayle was equally sunny and chuckled, "People are always asking to see my stomach. They think its going to look like a washboard." The curiosity is understandable, however. Gayle had appeared on location, "hands behind my head and ready to go at 5:00 a.m.," to spend twelve hours performing a record breaking 13,104 sit-ups. The successful event has encouraged Gayle to step up her training. She had used Nautilus for her overall conditioning pro-

gram and is now continuing to "train with weights that would stagger most men." (Not only does her midriff not look like a washboard, her 5'3" frame shows absolutely no evidence to support the myth that women training with weights will put on bulk). In keeping with her attractive figure, Gayle had some interesting comments to make about women's sportswear. Voicing her long-range goal of producing a line of functional female athletic garb, she commented that "... you're going to work out, or you're going to brunch. Women serious about working out need something durable and absorbant. I have to go to men's wear."

Her light and airy nature could possibly be mistaken for a lack of seriousness, but when it comes to training she is dedicated. "I personally don't like a social atmosphere. A work-out room should be separate and solitary." After all, she is a hopeful for the 1981 ABC-TV Superstars Competition and intends to join the very few, if any, women who have ever passed the rigorous Fireman's Strength/Agility Test.

The sit-up record? It was produced and televised by the Guinness World Book of Records people, who considered it a "marathon." But Gayle Dickey concedes, "I could have gone on easily! Things like that depend on setting your mind on your goal and knowing that you're going to do it."

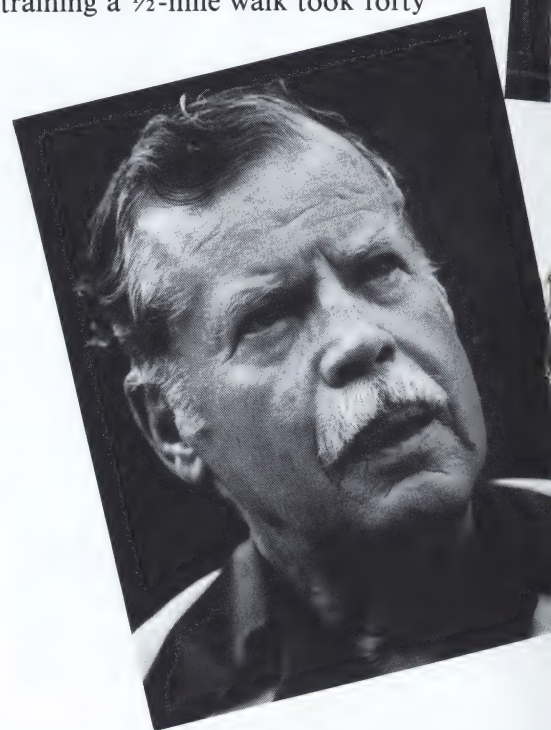
Santa Barbara

Later the same day and a hundred miles away in Santa Barbara, another Nautilus advocate recorded his preference for serious workouts and presented his own brand of commitment. In

December of 1978, Robb White awakened one morning and instead of reporting for his scheduled surgery he went to the nearest Nautilus club. The seventy-two-year-old White is the author of countless books and screen plays including four years on the Perry Mason TV series, the books *Up Periscope* and *Torpedo Run*, and movie thrillers such as *The Tangler*.

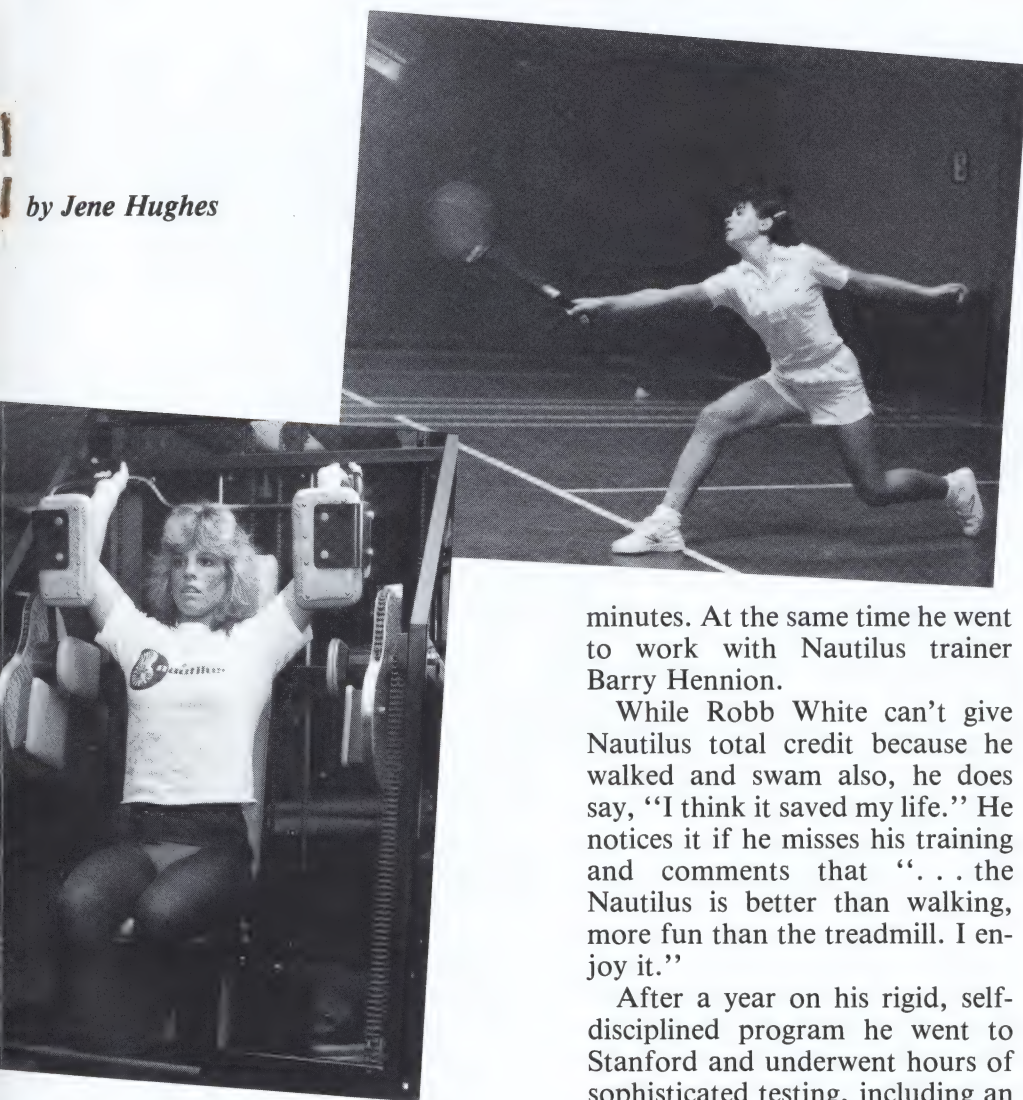
His problem, and the reason for the intended surgery, he explains, was "... intermittent claudication. It is caused by inadequate blood supply to the muscles. I had 85% blockage of the blood supply."

White feared gangrene and the loss of his legs. He decided to do something about it. Suffering pain he describes as "so excruciating that it made me cry," he began taking walks around the private road where his home is located. During the first two months of his training a 1/2-mile walk took forty



First Stop — California

by Jene Hughes



Above: One of Southern California's achievers, Linda Safarik. Linda is Junior Nationals Badminton Champion. She trains at Manhattan Beach.

Center: Gayle Dickey of sit-up fame.

Below: Robb White, author of Up Periscope.

minutes. At the same time he went to work with Nautilus trainer Barry Hennion.

While Robb White can't give Nautilus total credit because he walked and swam also, he does say, "I think it saved my life." He notices it if he misses his training and comments that "... the Nautilus is better than walking, more fun than the treadmill. I enjoy it."

After a year on his rigid, self-disciplined program he went to Stanford and underwent hours of sophisticated testing, including an angiogram during which dye was injected into his arteries so X-rays could be taken. He now produces the X-rays as souvenirs and evidence of what appears to have happened. The exercise prompted his legs to form an ancillary system where the capillaries expanded to carry blood through the painful calves. "My circulation was better than if I had had the by-pass operation. On a visit to North Carolina, I was able to walk six miles to visit my mother's tombstone."

Mr. White, showing no trace of a limp, views his own case as

unique. He has lost thirty pounds and has more wind and energy. "Most would lack determination," he says. "Most people in their seventies would just pack it in and sit in a wheel chair. I wasn't going to do that."

And like the youthful sit-up star, he is serious about Nautilus: "I don't go to talk!" There is an underlying tone of gratitude when he does talk about Nautilus: "... for 25 minutes, its a bargain!"

Riverside

Although Robb White and Gayle Dickey may represent extreme applications of Nautilus, they are by no means exceptions. Another Southern California resident taking Nautilus seriously is Roman Gabriel who, after sixteen years of NFL stardom, is opening the Roman Gabriel Sport Center. In his words, "... I've been interested and involved in fitness all my life. So the idea of a ... Sport Center seemed to be a 'natural.' I've personally participated in every step of making it a reality."

As construction of the facility nears completion, its manager Jim Glazner conducts business from a small store in the same shopping center. Nautilus machines are already on hand there for members who want to get a head start on the grand opening. Plans being discussed for the summer event include a "fun run" and an appearance by the Anheuser-Busch Clydesdale horses that are stabled nearby.

An unusual feature of the club is that, although the building would seem to fill the site, careful planning has provided for outdoor recreation and fitness activities.

Continued...

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Roman Gabriel (right) with club manager Jim Glazner.

Dominating the outdoor area is an 81-meter Olympic lap pool. Unlike pools designed for a refreshing dip or an occasional dive, the long pool provides three lanes for people interested in really swimming. At one end of the pool is space for a half-court basketball court and at the other end is space for a permanent "beach volleyball" court. Winding around the building and amongst the pool and courts will be a landscaped running track.

Inside the building, two spacious exercise rooms occupy much of the area that is not used for the ten regulation racquetball courts. Two of the courts are glass fronted for tournament play and all courts have overhead observation. Adjacent to the upper viewing area of the tournament courts is the juice and snack bar and a game room, which is slated for billiards and big screen video. Downstairs will be a pro shop, complete wet area, and the child care center. The planned recreation/exercise programs serve as a reminder of the variety of activities being pursued here. Whether someone's goal is disco

dancing or Karate, Roman Gabriel plans to be personally available to help tailor members' programs to their interests and conditioning needs. His overall intent is obvious. He is creating an environment so intriguing and appealing that even skeptics and people who "don't have time" will give fitness a try.

And More

Throughout Southern California, Nautilus is the wave that thousands of people are riding their own direction, using full range exercises for a full range of endeavors. The effect is vibrant and contagious. Other stops along Nautilus Magazine's route included a brief visit at a new club being opened in Rolling Hills Estates, a training workshop in Newport Beach, and a call on the impressive Nautilus Pacifica of Long Beach.

Gary LeFevre from Nautilus of California, the area's distributor for Nautilus Sports/Medical Industries, was installing equipment for Dave Wissehr at the new Nautilus of Rolling Hills Estates training center. Wissehr already operates a facility in Malibu and is

planning to add a third in Tahoe soon. In Newport Beach, owners Bill Fearing and Cindy and Steven Pelletier of Milo's Fitness Center for Men and Women were hosts to Michael Hoffman from Nautilus of California. The center had recently converted to Nautilus and Mike was on hand to conduct a training session for the staff. The future trainers took turns demonstrating the equipment while Mike explained each machine's function and insisted on proper form, concentrating on correct body alignment. The presentation was brisk, accurate, and made one point increasingly clear: Successful clubs are marketing **fitness**. Training seminars and educational materials used to teach the proper use of equipment ensure that clients receive more than a membership card. Trainees in California are receiving and **using** the benefits of proper strength training.

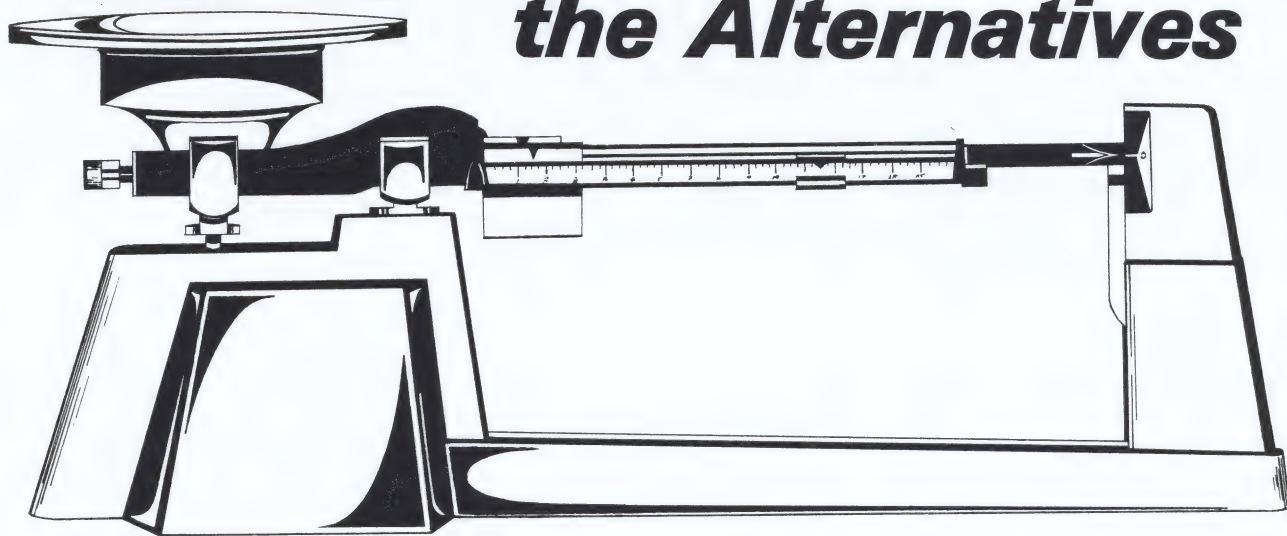
Reminiscent of the first visit that revealed California's broad spectrum of Nautilus interest, the last visit proved that achievement abounds through the area. Nautilus Pacifica is located in the Marina Pacifica development of Long Beach. The front entry is from the huge and exclusive two-level shopping mall. The rear entry is from the patio directly over a maze of waterways and boat slips that can only be described as a contemporary reconstruction of Venice.

The surroundings could easily house a leisurely sort of place where people gather to enjoy the atmosphere, but again seriousness prevails. The club, owned jointly by Leonard Zalopany, Jr. and Dick Carlson, trains and sponsors the American Volleyball Association Men's Open Champions. The team, clad in Nautilus Pacifica uniforms, won the national title last year in Dayton, Ohio, and is now moving hopefully toward this

Continued on page 21

by Ellington Darden, Ph.D.

Weighing the Alternatives



*In his last article, **Winning by Losing**, Dr. Darden discussed the functions of body fat, its evaluation as a percentage of weight, and the importance of losing fat slowly . . .*

It is virtually impossible to lose body fat quickly and easily. Almost anyone can lose five or ten pounds of body weight on a short-term basis. But unless the process is slow, most of the weight loss will be from the muscles and organs rather than from fat stores. Only three to four ounces of fat can be lost in a 24-hour period of time. What counts is losing weight permanently and making sure that the weight loss is fat. This requires discipline, motivation, and patience.

Fraudulent Advertising Offering Weight Loss

A large percentage of advertising in popular magazines offering weight loss is myth, half

truth, and outright lies. Many advertisements advocate dangerous practices. Some of the more popular ones peddling miraculous ways to lose fat are as follows:

One company claims that by simply wearing their weighted belt an individual can "whittle inches off his waist."

According to the Federal Trade Commission, this is a useless gadget. Some individuals, says the Commission, "could physically injure themselves" wearing the belt.

Another device is electrical and transmits current to the muscles through contact pads strapped on the body. Actually, the muscle movements are too weak to consume enough energy to cause a

noticeable reduction in fat. Doctors believe these machines can be dangerous to the heart and other organs.

Mechanical vibrating belts may relax a person and make him feel better, but certainly will not remove fat. Fat cannot be shaken, tickled, beaten, or stroked from the body.

Rubber clothes ranging from belts, shorts, and shirts to full outfits are supposed to sweat off the fat and inches. Any weight loss, of course, is merely a result of dehydration, which is quickly replaced when the individual quenches his thirst. Since fat contains only a little water, none of the water lost comes from the person's body fat.

Continued . . .

Weighing the Alternatives

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Other products include an inflatable, rubberized belt placed around the waist before exercising and left on for a time after the exercise to let the midsection steam away excess pounds and inches. According to the advertisers, the belt will reduce inches without reducing body weight.

Also there is a tape which has been soaked in a "secret" solution. The body, or the specific part a person wants reduced is wrapped with this tape. The person sits in a sauna bath for 30 minutes, and the secret solution supposedly draws the excess fat from the body. It must be reiterated that fat cannot be sweated out of the body.

Over-the-counter-drugs: Despite the efforts of the pharmaceutical industry, no satisfactory fat-reduction drug has been developed. Nobody will lose fat simply by consuming a certain capsule, tablet, or pill. In the opinion of many physicians the over-the-counter weight losing and appetite control claims are nonsense and lies. They should be withdrawn from the market.

Cellulite

Cellulite is a trade word supposedly connoting a unique type of fat that can only be removed by a costly and elaborate program. But cellulite is not a special type of fat. It is just plain fat. The relationship between the skin, the fat, and the underlying muscles and fascia are distinctive in human beings. Other species have fur, feathers, and certain vascular blood-shunting devices to combat cold weather. But we humans have virtually nothing between us and the elements except fat and skin. This may be one of the reasons that fat adheres so stubbornly to our underlying fascia.

It is this adhesiveness that ac-

counts for the kind of dimpling effect that has been dubbed "cellulite." The term has been applied to the puckering or dimpling of fat that occurs in the buttocks and thighs of overfat and usually middle-aged women. Although there is no such word medically, "cellulite" has become such a common term that it would be pointless to try to remove it from the dieter's vocabulary.

In cellulite the connective tissues which serve as pouches for large groups of fat cells in a honeycomb arrangement under the skin lose their elasticity and shrink with age. The overlying skin which is attached to these fibers then contracts. If the size of the fat cells encased in them does not shrink to match, a kind of overall dimpling appears on the surface of the skin.

The cure for this is to reduce the size of the empouched fat by dieting. A person's goal should be to shrink the fat cells inside the pockets of connective tissue down to the limits of the shrunken connective fibers.

The American Medical Association has issued a statement calling cellulite a hoax and denouncing its remedies as economic exploitation.

Government Action Against False Advertising

The Food and Drug Administration, the Consumer Protection Bureau, and the Post Office Department have some responsibility for diet and exercise gimmicks. Several years ago, the Post Office Department set out to prove that a particular device — a belt — did not do what it claimed to. The Department did not agree with the manufacturer's allegations that the product could reduce inches without reducing body weight.

Testifying in court, Dr. Sedgwick Mead, a government scientist, noted: "There is no really successful way of reducing the waistline without reducing body-weight as a whole. The inert fatty substance cannot be in any way increased or decreased in volume by massage, compression or exercise."

This was and still is considered sound medical opinion. The belt manufacturers, however, came up with their own expert, a professor of physiology from a west coast university. This professor insisted that spot reduction had taken place, explaining "it was a redistribution of the fat layer." He went on to say that there are mysterious things happening under that belt.

The Postal authorities lost the case. Since then, hundreds of thousands of belts, or variations such as shorts and suits have been sold to the gullible public.

It looks like a losing battle for the protectors of consumer rights. Although the criminal statute provides for heavy penalties for fraudulent advertising, courts and juries will not convict the culprit unless the essential element of intent to defraud is definitely proved. Whether the claims for the product are true or false is not the question. Did the promotor know the claim to be false? That is the question. The defendant needs to explain nothing. He is presumed innocent and remains so until the court can prove to the contrary.

The clever promoter, therefore, can advertise almost anything he wants to in any conceivable way for a surprisingly long time.

The Search for a Foolproof Way

There is no foolproof way to lose and keep off fat. Statistics from available studies by Doctors

The object in long-term fat reduction is to learn to cheat hunger as intelligently as possible . . .

J. A. Glennon, J. A. Strong, and A. R. Feinstein conclude that only 10 percent of the patients in scientifically conducted and controlled clinical fat-reduction programs managed to maintain their original weight losses after one year. At two years this figure had dropped to 6 percent. After a five-year period the ratio had dwindled to less than 1 percent.

The highest success rates for any of the groups tested were for male volunteers who were members of an Anti-Coronary Club program in New York City. The men enrolled in the program were a high-risk group in terms of age, lifestyle, and eating habits. The results of this study probably reflect the life-and-death rationale attending the program.

In the light of this information one thing remains clear: There is no way to get fat without eating too much for the body to manage. Nor is there a way to get lean without eating less food than the body needs to store.

Dieting

Dieting is the cure for fat and many other bodily ailments, but certain diets have proved to be useless or harmful.

High-fat diets contribute to artery disease. No-carbohydrate diets may cause bowel cancer. Microbiotic and liquid-protein diets have been lethal for some people. Unbalanced diets never change eating habits and therefore are never permanent. Fat persons must face the fact that a well-balanced, low-calorie diet is the prescription of the nutritional and medical professions. If properly followed, it will produce a small, weekly fat loss without long-lasting hunger. The following chart is a simple guideline for losing fat. It is based on the nutritionally balanced Basic Food Groups:

meat, milk, fruits and vegetables, breads and cereals.

The important factor in losing body fat is the strict adherence to a diet restricted in calories but balanced in nutrients.

Most people should begin by following the guidelines for 1,500 calories a day. Gradually, within four to six weeks, they should progress to 1,200 calories a day. On this plan, they should notice a slow and steady loss of weight without skipping meals.

Skipping breakfast is one of the great American vices. The habit usually begins in the teen years. The body has to have fuel to function properly. It is far better to reduce meals by half than to skip them. If an individual is determined to skip a meal, dinner is the best one to eliminate.

Tricks that Control Hunger

Hunger is the dieter's Nemesis. The object in long-term fat reduction is to learn to cheat hunger as intelligently as possible.

Three physiological subsystems are involved in hunger: the brain, the gut, and the endocrine system. These subsystems are subject to mental, physical, and social control.

The first line of defense against the appetite is the hypothalamus. The hypothalamus is the control center of the brain. Signals that we as dieters can inject into the hypothalamus include cues to the body temperature, blood and tissue oxygen levels, tissue water supplies, and glucose supplies.

Perhaps the easiest idea to manipulate is heat. One way of persuading the brain that the body is being fed is to turn up body heat. Body heat can be increased by eating or drinking something hot or by putting on extra clothes and moving into a warm room.

Another way to trick the unfed

hypothalamus is to persuade it that there is more oxygen in the tissues than is actually there. If a person feels hungry, he should do some exercise.

The second line of defense against hunger is the gut. One way to trick the gut into feeling fed is to eat large amounts of low-calorie foods. This may not quench the fires of hunger, but it can make the dieter feel so full that he does not want food. If that fails to work, bloat or nausea will. Salads and vegetables are good for this purpose. So are soups and cereals. And the hotter the food the better.

The third line of defense against the gnawing desire for food is the endocrine system which pervades the whole body, reinforces the brain and the gut, and responds to certain general practices of controlling hunger.

The time it takes various food components to pass through the gut can be used to advantage by the dieter. The ideal meal plan for anyone with an ungovernable appetite is to start the meal with something sweet and follow it with a salad, then eat the rest of the meal.

Dieters who have trouble keeping their appetites in check at parties and gala dinners should prediet rather than postdiet. If a person must overeat, he should do it on an empty stomach.

The frequent advice to drink plenty of water while one is on a diet is appropriate. Not only does the water make the stomach feel full, but whatever works to preserve fat stores in the body seems closely related to whatever it is that conserves water.

Special attention should also be given to carbohydrate intake. Fat burns best and fastest in the presence of carbohydrates, and the dieter's own lean tissue is at

Continued . . .

Weighing the Alternatives

Continued . . .

risk when there is no starch or sugar coming into the system to provide fuel for burning fat. At least 50 percent of a well-balanced, fat-reducing diet should be in the form of carbohydrates.

Mental and physical appetite control can be reinforced by social contacts that prove effective for many people. Group therapy often helps the dieter. Many people join Weight Watchers and similar organizations because they believe that support of others will strengthen their resolve. Some of the groups work on the same principle as Alcoholics Anonymous. When a dieter gets an urge to head for the refrigerator, he heads for the telephone instead and calls a fellow fatty.

The Physician's Approval for Dieting

A person in normal health will not be harmed by drastically cutting down on his food intake. But

if there is an incipient illness, he will need all his strength to combat it. Many people are suffering from a disease or a physical malfunction which would worsen if they embarked upon a dieting program that would put additional stress on their system. A doctor should prescribe the diet for such people. If there is a tendency toward diabetes, he would warn a person away from certain diets. If an individual has a heart condition, he would tell him to limit his egg intake which builds up cholesterol. If, after taking his blood pressure, the doctor discovers that he has hypertension, he would put him on a low-sodium diet.

Exercise and Fat Reduction

A low-calorie diet does result in weight loss. Careful studies show that some of this weight loss comes not from body fat, but from the muscles, vital organs, and extracellular fluid. Loss of protein from these vital cells and organs is difficult to avoid with even small reduction in the caloric

intake of an inactive person. The problem, however, is readily overcome if a correct diet is combined with increased exercise. Increased exercise uses additional calories, improves the physical appearance and condition, and helps to quell the pangs of hunger.

To get the most out of an exercise program, the exercises must be properly selected and performed. Just any group of exercises will not do the job, they should involve all major muscles and should involve full-range movement while becoming progressively more strenuous.

Muscles that are properly strengthened require more calories. The more muscle men or women have the more they can eat without getting fat.

A proper treatment program for obesity, therefore, should not only decrease the caloric intake and increase physical activity. It should strengthen muscles and keep them strong through proper strength training. ☛

DIETARY GUIDELINES FOR LOSING FAT (Sample Diets)			
FOOD	FOR 1,200 CALORIES DAILY	FOR 1,500 CALORIES DAILY	NOTES
Meat Group	3 small servings (or a total of 7 ounces cooked weight)	3 small servings (or a total of 7 ounces cooked weight)	Choose lean, well-trimmed meats: beef, veal, lamb, pork. Poultry and fish should have skin removed. One egg can be substituted for 1 serving of meat.
Milk Group	2 cups fortified skim milk	2 cups whole milk	Two cups milk means two 8-ounce measuring cups.
Fruits and Vegetables Group	4 servings	4 servings	One fruit serving = 1 medium fruit, 2 small fruits, 1/2 banana, 1/4 cantaloupe, 10-12 grapes or cherries, 1 cup fresh berries or 1/2 cup fresh, canned or frozen unsweetened fruit or fruit juice. Include one citrus fruit or other good source of vitamin C daily. One vegetable serving = 1/2 cup cooked or 1 cup raw leafy vegetable. Include one dark green or deep-yellow vegetable or other good source of vitamin A at least every other day.
Bread and Cereal Group	4 servings	5 servings	One serving = 1 slice bread; 1 small dinner roll; 1/2 cup cooked cereal, noodles, macaroni, spaghetti, rice, cornmeal; 1 ounce (about 1 cup) ready-to-eat unsweetened iron-fortified cereal.
Other Foods	1 serving	3 servings	One serving = 1 teaspoon butter, margarine, or oil; 6 nuts; 2 teaspoons salad dressing; or 35 calories or less of another food.

Continued from page 8

Continued from page 13

graphically. Those of us in the sports and film business know that any arm or leg photographed against resistance — be it Nautilus equipment or a runner's legs on the road — is going to look more bulky. This can nurture old myths, so club owners should take care about their printed materials. It would help if more fitness facilities would publish a pamphlet for women only and take the opportunity to squarely address those areas unique and controversial to women: muscle bulk, menstruation, pregnancy, etc. Women need to know that proper training will be helping them — even by enhancing them — and not in any way imposing masculinity on them.

People who begin fitness programs for whatever reasons get seriously involved with it. For women the future looks bright. ♀

pare for the event. The athlete develops a whole variety of mental programs for competing and when he's in the race, all he focuses on is the goal line and beyond. He doesn't spend too much time thinking about many techniques because they have been so well rehearsed that they've become automatic. This gives the athlete added confidence during the competition.

Sometimes an individual can panic himself by responding to the event surrounding the competition. This is quite clearly shown in some runners by an inclination at times to focus in on a runner coming from behind or the roar of the crowd or some other distracting influence which, to the extent that it slows him down for a second or two, can actually interfere with the accomplishment or victory in the event.

In hand-to-hand combat, as in Judo, where one has got to deal with the aggressiveness of one's

opponent, a psychological state of preparedness and confidence, along with a positive sense of self, is really of great value. This can be practiced, rehearsed, and developed so that the athlete going into the situation is not in any way thrown by the cockiness or confidence of the opposition.

It's quite clear that the athlete himself can create stress for himself by his response to the competition and to the events around him. The top athlete has learned to master this, in fact, looks forward to the stress as an opportunity to test himself, to challenge himself and to master many of the obstacles that may occur in subsequent events. Beyond that, by mastering stress the individual gains even greater confidence and ability to perform.

Another critical variable in the self-fulfilling prophecy is the fact that if you believe you're going to win, your chances of winning are far greater than if you have any doubts about it. The more you can think positively and focus in on the likelihood of achieving the goal you've set, the more likely it is you'll work toward it, pursue it, and relax so that all your resources can be applied to the event itself, knowing full well that you are going to win. I think sometimes it's the fear of committing one's self to win which keeps people from committing themselves. Athletes fear that, once committed to winning, they may have to explain themselves if they lose. But they certainly will have to explain themselves to other people if they don't commit themselves at all, whether they win or lose. So it makes far more sense to commit one's self to the objective and not worry about the embarrassment of not winning. Oftentimes those people who take an ambivalent attitude ("Well, I'll win but I'm not completely sure, so I'm not going to put all my effort into it") are really only preparing a rationalization or excuse for themselves, and by doing so they are actually reinforcing the notion that they are not going to succeed. ♀

California

Continued from page 16

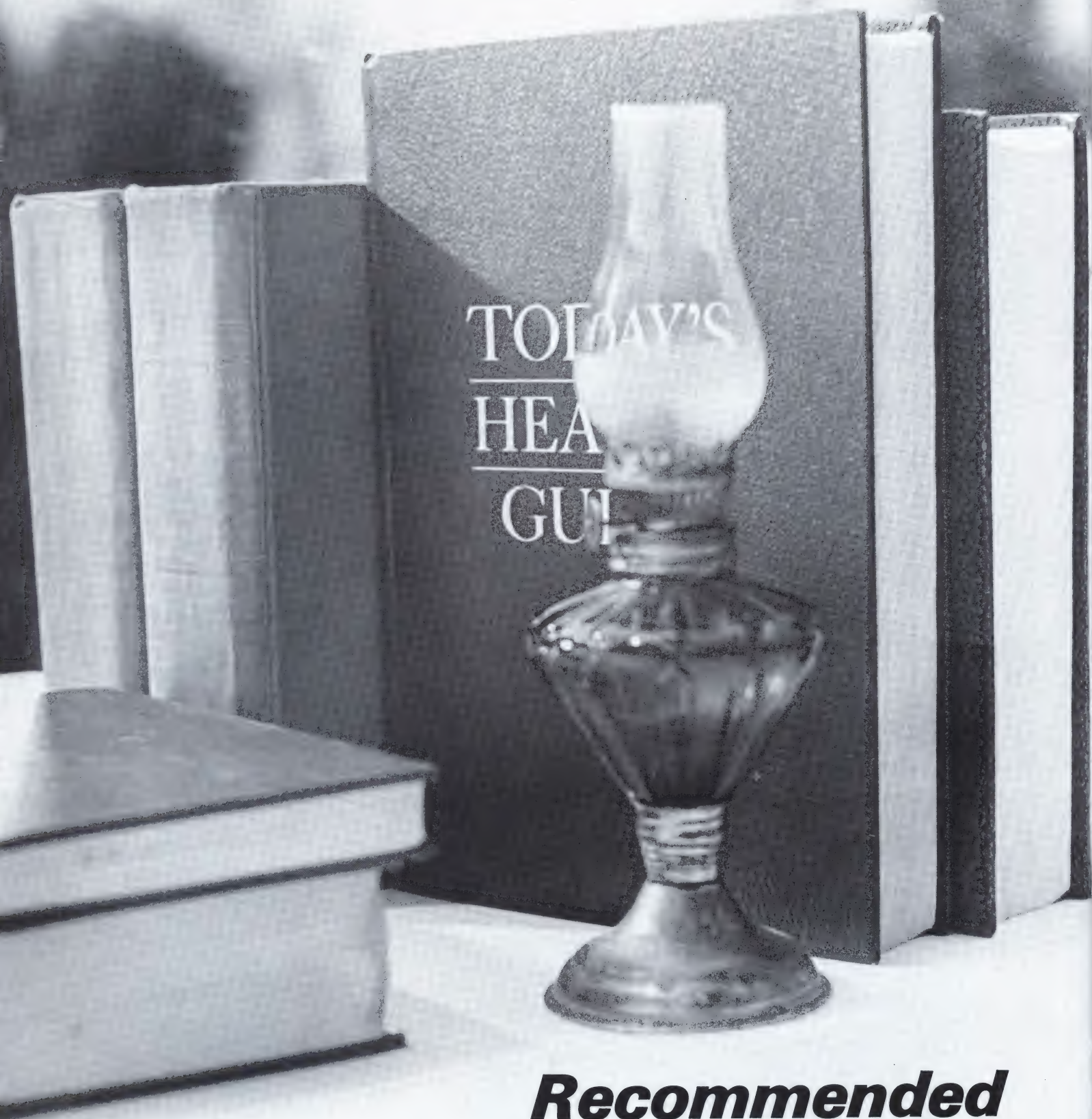
year's tournament in Portland, Oregon.

In all, Southern California is alive with Nautilus. In just one club are bicycle racers, bowlers, badminton champions, and base-

ball pros. And there always seems to be another club nearby. The entire scenario reflects both quality and quantity. It is a place where activity abounds and full-range exercise equals full-range living. ♀



View from interior of California's Nautilus Pacifica.



Recommended Reading

Nautilus Magazine is asked frequently by club owners for materials that explain the Nautilus concepts and for a recommended reading list of related fitness books. Included are books that Dr. Ellington Darden, Director of Research for Nautilus Sports/Medical Industries, has written and books he has reviewed favorably over the last year.

Books by Dr. Darden

Nutrition and Athletic Performance, 1976. Athletic Press, P. O. Box 2314-D, Pasadena, CA 91105. 208 pages, softcover, \$4.95.

Especially for Women: Exercise, Diet, Strength Training, Nutrition, 1977. Leisure Press, P. O. Box 3, West Point, NY 10996. 228 pages, softcover, \$6.95.

Strength-Training Principles: How to Get the Most Out of Your Workouts, 1977. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 80 pages, softcover, \$3.95.

Olympic Athletes Ask Questions about Exercise and Nutrition, 1977. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 56 pages, softcover, \$2.95.

How to Lose Body Fat, 1978. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 112 pages, softcover, \$4.95.

Soccer Fitness, 1978. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 96 pages, softcover, \$3.95.

How Your Muscles Work: Featuring Nautilus Training Equipment, 1978. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 72 pages, softcover, \$3.95.

Nutrition for Athletes: Myths and Truths, 1978. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 96 pages, softcover, \$3.95.

Conditioning for Football, 1979. Anna Publishing, 2469 Aloma Ave., Winter Park, FL 32792. 128 pages, softcover, \$4.95.

The SuperFitness Handbook, 1980. George Stickley Co., 210 W. Washington Sq., Philadelphia, PA 19106. 320 pages, hardcover, \$12.95.

The Nautilus Book: An Illustrated Guide to Physical Fitness the Nautilus Way, 1980. Contemporary Books, 180 N. Michigan Ave., Chicago, IL 60601. 192 pages, softcover, \$5.95.

Other Recommended Fitness Books

The Medicine Show by the Editors of Consumer Reports, Fifth Edition, 1980. Consumer Reports Books, P. O. Box 350, Orangeburg, NY 10962. 363 pages, softcover, \$5.00.

The Thin Game: Dieting Scams and Dietary Sense by Edwin Bayrd, 1979. Avon Books, The Hearst Corp., 959 Eighth Ave., New York, NY 10019. 205 pages, softcover, \$2.25.

A Teaching Manual on Food and Nutrition for Non-Science Majors by Daniel Melnick, 1979. The Nutrition Foundation, 888 Seventeenth St., N.W., Washington, DC 20006. 354 pages, softcover, \$6.00.

Binge! It's Not a State of Hunger . . . It's a State of Mind by Ronald Jay Cohen, 1979. Macmillan Publishing Co., 866 Third Ave., New York, NY 10022. 144 pages, hardcover, \$6.95.

Sports Medicine and Physiology by Richard H. Strauss (editor), 1979. W. B. Saunders Co., West Washington Sq., Philadelphia, PA 19105. 441 pages, hardcover, \$16.95.

The Moving Body by Pat Kennedy, 1979. Faber Paperbacks, Merrimack Book Service, 99 Main St., Salem, NH 03079. 112 pages, softcover, \$5.50.

Varicose Veins: A Commonsense Approach to Their Management by Howard C. Baron with Edward Gorin, 1979. William Morrow & Co., 105 Madison Ave., New York, NY 10016. 160 pages, hardcover, \$7.95.

Foundations of Physical Education by Richard S. Riveness, 1978. Houghton Mifflin Co., Wayside Rd., Burlington MA 01803. 309 pages, hardcover, \$11.95.

Nutrition and Food Choices by Kristen W. McNutt and David R. McNutt, 1978. Science Research Associates, 7200 S. Leamington, Chicago, IL 60638. 507 pages, hardcover, \$15.95.

Physiology of Exercise: Responses and Adaptations by David R. Lamb, 1978. Macmillan Publishing Co., 866 Third Ave., New York, NY 10022. 438 pages, hardcover, \$15.50.

Total Fitness the Nautilus Way by James Peterson (editor), 1978. Leisure Press, P. O. Box 3, West Point, NY 10996. 240 pages, softcover, \$6.95.

Women and Sport: From Myth to Reality by Carole A. Oglesby, 1978. Lea & Febiger, 600 Washington Sq., Philadelphia, PA 19106. 256 pages, softcover, \$11.00.

Fat and Thin: A Natural History of Obesity by Anne Scott Beller, 1977. Farrar, Straus and Giroux, 19 Union Square W., New York, NY 10003. 310 pages, hardcover, \$10.00.

The New Nuts Among the Berries by Ronald M. Deutsch, 1977. Bull Publishing Co., P. O. Box 208, Palo Alto, CA 94302. 359 pages, softcover, \$4.95.

The Biology of Physical Activity by D. W. Edington and V. R. Edferton, 1976. Houghton Mifflin Co., Wayside Rd., Burlington, MA 01803. 371 pages, hardcover, \$14.95.

The Health Robbers: How to Protect Your Money and Your Life by Stephen Barrett and Gilda Knight (editors), 1976. George Stickley Co., 210 W. Washington Sq., Philadelphia, PA 19106. 340 pages, hardcover, \$10.50.

Florida Seminar:

Continued from page 5

All photos © 1980 Scott LeGear



Video displays accompanied a circuit of machines giving big screen instruction for each. The machine between the left two screens is the new Abduction-Adduction Machine.



Racquetball clinician Dave Peck was on hand to speak to club owners. Below is the entrance to the new video facility.

system that enables easy handling. Included in the various packages are the necessary "hardware" to equip facilities for efficient video instruction. The smallest package includes an 8-inch SONY Trinitron Portable Television along with the SONY SLP-300 Industrial Betamax Playback Unit and 20 tapes. Other packages have 100 tapes, an SLP-300 Industrial Betamax Playback Unit, and a choice of 8-inch, 19-inch or 6-foot screens, all manufactured by SONY. 9



Nautilus Tapes Now Available

LEG #1 Length: 5:42:1

TAPE TITLE: DUOsymmetric/POLYcontractile Hip and Back

Demonstrated by Terry Brantner, emphasis is placed on the only machine which provides full range exercise for the hips and upper body. Style is "woman to woman."

LEG #2 Length: 3:28:6

TAPE TITLE: Leg Extension Machine

BOX TITLE: Leg Extension

Demonstrated by Terry Brantner, Terry explains the value of the Leg Extension Machine in dealing with women's problems with the upper thighs.

LEG #4 Length: 3:45:9

TAPE TITLE: Leg Curl Machine

BOX TITLE: Leg Curl

Terry Brantner discusses with women the value of the Leg Curl Machine in improving the figure.

LEG #5 Length: 14:00

TAPE TITLE: Hip Abductor/Adductor Machine

BOX TITLE: Hip Abduction/Adduction

Demonstrated by Ellington Darden, Ph.D. and Terry Brantner. Dr. Darden instructs Terry Brantner on the proper use of this machine.

LEG #5B Length: 5:04:4

TAPE TITLE: Hip Abduction/Adduction Machine

In very simple terms Terry Brantner discusses with women the introduction of the Hip Abduction/Adduction Machine as part of the answer for figure problems with women.

LEG #6 Length: 13:33:4

TAPE TITLE: Figure Control for the Hips and Upper Thighs

Dr. Ellington Darden and Terry Brantner discuss and demonstrate several Nautilus Machines involving the thighs, hips and upper back. The machines are the Leg Extension, Leg Curl, Duo Hip and Hip Abduction/Adduction Machine.

TORSO #1 Length: 17:39:1

TAPE TITLE: Pullover Torso Machine

BOX TITLE: Super Pullover

Dr. Ellington Darden instructs Terry Brantner in the proper use of the Pullover Torso Machine.

TORSO #2

TAPE TITLE: Pullover Torso Machine for Women

BOX TITLE: Pullover/Torso Arm

Terry Brantner compares different exercises for the arms and torso for women, demonstrating that the Nautilus Pullover Torso Machine provides the only full range exercise for the largest muscles of the upper body.

TORSO #10 Length: 13:13:5

TAPE TITLE: Nautilus Multi Exercise Machine

BOX TITLE: Multi Exercise

Dr. Ellington Darden demonstrates with Terry Brantner the proper way for women to do different exercises on the Multi Exercise Machine.

TORSO #11 Length: 6:30:4

TAPE TITLE: Improving the Bustline

Terry Brantner discusses with women how to improve the most distinctive feature of the female figure, the bustline.

ARM #1 Length 9:50:0

TAPE TITLE: Nautilus Compound Biceps Machine

BOX TITLE: Compound Curl

Dr. Ellington Darden instructs Terry Brantner in the proper use of this machine.

ARM #2 Length: 23:30:9

TAPE TITLE: Multi Biceps Machine

BOX TITLE: Multi Curl

Dr. Ellington Darden and Terry Brantner demonstrate the proper execution of this important exercise.

ARM #3 Length: 10:06:2

TAPE TITLE: Nautilus Multi Triceps Machine

BOX TITLE: Multi Triceps

Demonstrated by Ellington Darden and Terry Brantner, the proper use of this machine is stressed.

SPORTS MEDICINE #1 Length: 19:55

TAPE TITLE: Dick Butkus — Prevention of Sports Injury

Dick Butkus reviews the different exercises Nautilus has developed in order to help prevent injuries.

SPORTS MEDICINE #2 Length: 9:10

TAPE TITLE: Rehabilitation of an Injured Athlete

Eric Soderholm and Dr. James D. Key tell Eric's story. The story shows the successful Nautilus approach for rehabilitation of injured athletes.

ADDITIONAL AVAILABLE TAPES AND SERIES

The Nautilus Story

Nautilus Fitness Facts: Series with Dr. Ellington Darden, Ph.D. and Mary Pluth

Four Requirements for Fitness

What is Fat?

Losing Body Fat

How to Measure Body Fat

Nautilus and Racquetball: Series

Improving Your Game with Nautilus

Training and Playing

Anyone Can Play

Specificity in Training

Nutrition for Racquetball

Style of Training

Nautilus — Three Times the Results

Nautilus Delivers!



For Nautilus drivers, the delivery of equipment to a customer's location is usually simple and routine. The complications, when they arise, are in the form of an obstacle course between truck and exercise room. One delivery team reported a customer using a crowbar on the spot to remove a newly built wall so the machines could be moved in.

More common, however, are problems with elevators and stairways, and a spring shipment to the United States Navy proved to be only somewhat different. Although Nautilus machines have long been in action at Armed Forces bases from California to Florida, this April marked the first delivery of equipment for shipboard use.

After leaving the warehouse at 4:00 A.M., Nautilus drivers Eddie Parsons and Allen Funk arrived at

noon at the Norfolk, Virginia, Naval Operation Base's famous Pier 12, one of the few piers that can accommodate the largest war ships that history has seen. Docked there were two aircraft carriers, the John F. Kennedy and the exercise equipment's destination — the U.S.S. Dwight D. Eisenhower.

After checking in with security, the truck was parked and the machines were loaded onto a fork lift, raised onto the ship's aircraft elevator, and moved into the hangar. Upon encountering three steep ladders, the movers returned the pieces to the elevator and accompanied them to the flight deck where a fork lift was again used to steer the equipment into position at the edge of the ship, this time to be moved down into the vessel.

In what driver Parsons described as "... the toughest

delivery I've ever made," the machines were disassembled into sections small enough to pass through a series of steps, U-turns, more steps and more turns, meanwhile passing through eight "doors." "They kept correcting me and calling them 'hatches'," recalls Parsons, "but they were doors to me. They were the oval kind you have to step over to go through."

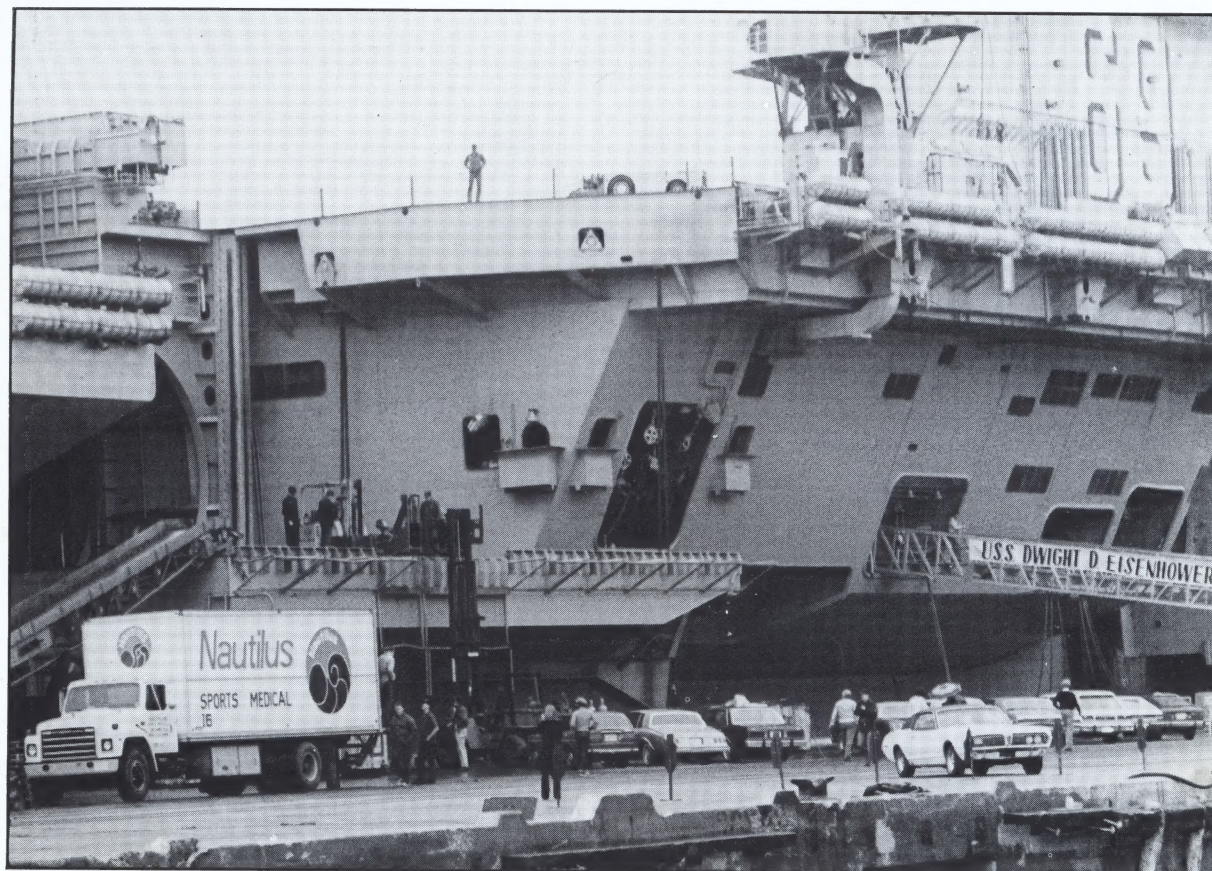
Probably the hardest handling occurred after the first three steps from the deck where a platform was reached that left the movers looking scores of feet straight down into the water over a waist-high railing. "The Hip and Back Machine was the hard one there because we had to take it in two large pieces. It kept tipping toward the water."

The crew's willingness to help was welcomed, but limited by the fact that, even torn down into the smallest pieces ever, the machines were hard to maneuver through the 24"-wide hatches and much of the time when manpower would have helped there was no space for helpers to stand.

At chow time the drivers declined dinner out of concern that they might exceed time restrictions for leaving the base. As it was, the installation took until 10:00 P.M., and it was even later by the time the movers cleared exit security with their empty truck.

The Eisenhower (crew members wear "I Like Ike" buttons) shares honors for being the largest craft of its kind with two other carriers in the Nimitz Class, the Carl Vinson and the Nimitz. The Eisen-

A Good Move for the Navy



hower, over a thousand feet in length, can accommodate a crew of up to 6,300 sailors. It was completed after seven years of work in October of 1975 and commissioned in 1977.

The safely delivered machines (A Dou-Poly Hip and Back, a Leg Extension, a Leg Curl, a Super Pullover, a Double Chest, a Double Shoulder, and a Combination Arm) were on their way for a nine month Mediterranean cruise within a day of when the drivers returned home. 🌀

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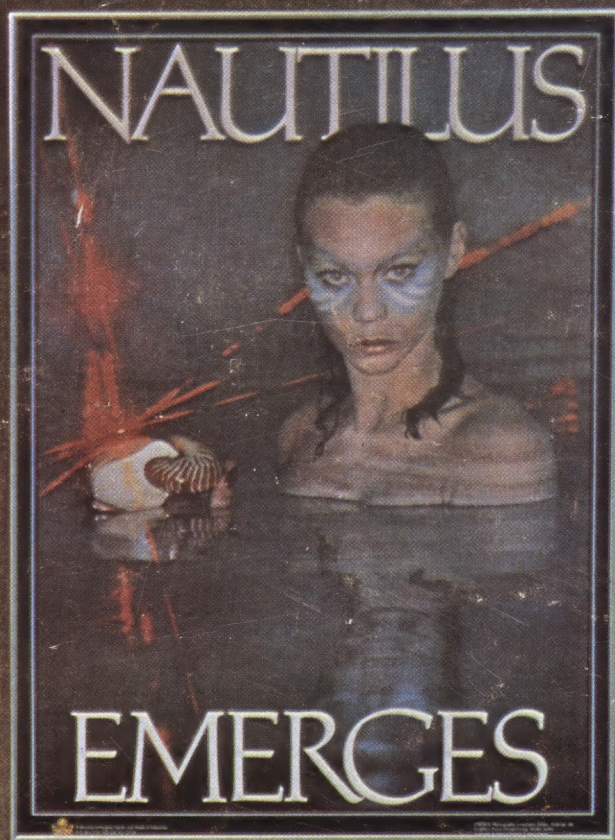
Captured Nautilus

Andrew Wyeth captured his on canvas in 1956. Noted fashion photographer Constance Ashley captured ours on film in 1979. Both, in their own way, are famous.

Wyeth's "Chambered Nautilus" hangs in an eastern museum. "Nautilus Emerges," is a full-color 21" x 28" award-winning poster that will soon be found in sophisticated dwellings nationwide.

Should you prefer Wyeth's Nautilus, it will cost you something in excess of \$100,000 — Ours, on the other hand, can grace your walls for \$3.00 plus handling.

Save \$99,997 and countless insurance premiums by ordering "Nautilus Emerges" today.



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